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Wages and the Standard of Living

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Contents.

Contents.

WAGES AND THE STANDARD OF LIVING.

I. Introduction.

The test of any industrial system is the extent to which it betters the conditions of life of those people who live under it. The tangible items of life are not the only things which improve the welfare but in such a world wherein scarcity still exists, the obtaining of the tangibles is a necessary requisite for the full development of the great masses of mankind.

The question "the condition of the people" is of vital import in the field of social history. It is the best clue to the relative success of any economic system and it gives some idea of the permanency of such a system. When the material welfare of the great masses is increasing then there is slight protest made against the existing order of things. If the opposite situation prevail, then we have social unrest and its concomitants.

During the past few years, changes in the cost of living have been matters of utmost importance to all consumers, to employers, and also to the wage earning classes regardless of the field. The consumer has had to adjust his manner of living to his income or his income to his manner of living--the employer has had to make changes in his wage and salary payments.

Since 1897, the general trend of prices has been upward and even before the beginnings of the World War many complaints were being registered as to the high cost of living.[1] But the

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1. National Industrial Conference Board, "The Cost of Living in the U. S." p.1

War resulted in such drastic changes that there was much suffering with the resut that this question of the cost of living began to be a matter of importance. As a result more scientific and accurate efforts were made to measure the changes in the cost of living than had hitherto been exerted. In order to measure such changes we need first, "more or less accurate information concerning what people buy to satisfy the daily needs of subsistence" and second, accurate information about the prices which consumers must pay for the articles and services which enter into the cost of living.

In the United States and other countries, there have been investigations made at various times in regard to the cost of living among industrial wage earners. The purpose of such investigations was to portray the conditions of life among various groups of wage earners. Before 1914 much information had been collected regarding family expenditures and their allocation. The available information concerning retail prices was rather meager at the same time and if it were available, it had not been gathered with the view of depicting changes in the cost of living--that is the items which were priced were such as did not exert a great influence on the cost of living.[1]

What information in regard to prices which had been accumulated was primarily concerned with wholesale prices. The United States Bureau of Labor Statistics had created an official index of wholesale prices (1900) based almost exclusively on the investigations of the Aldrich Committee

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1. Ibid, p. 2

for the period 1840 to 1891. All changes concerning the cost of living prior to 1914 had been studied in the light of wholesale prices as it was assumed that retail prices reflected wholesale price changes and thus the latter prices gave a clue to the changes in the cost of living. The World War very forcibly brought out the fact that retail prices lagged behind wholesale prices and that in the former could be found more accurate measurement of changes in the cost of living.

The change in price levels (from a high level to a low level or the opposite) is not uniform in time or degree for all types of articles or services. Wholesale prices move either downward or upward before there is a corresponding change in the retail prices of the same commodity. If prices rise, wages do not increase until a lapse of some time. In comparison with other prices, rents move slowly. In a general advance, they are the last to start and when the advance has been checked elsewhere, the momentum which the rents have acquired might carry them upward while other prices are unmoved or perhaps falling. There are more changes in the price of food than there are in the price of clothing. Salaries might increase more rapidly than wages under some circumstances--under other conditions the wages might exceed the salaries. Now these incongruities in our economic mechanism might and do pass unnoticed when the changes are slow and gradual. But in the event of "convulsive" movements such as those in finance and business during the World War, the

foregoing incongruities bring hardship and distress.

The rapid rise in prices after 1914 brought with it a considerable increase in the cost of living. It was very apparent that with the new level of prices and the prevailing wage scales that the former manner of living could not be maintained and as a result there came demands for wage increases--demands which often led to friction between the employer and the worker. The former were quite willing to grant the worker such increases as would compensate for the increased cost of living. But each group disagreed as to what extent the cost of living had actually advanced. A recourse to statistics of wholesale prices failed to give the answer nor were the available retail statistics of much use because they were almost solely concerned with food. As time went on, there was shown the necessity of some more accurate measurement of the cost of living than hitherto possessed. Such a measurement should not only be based entirely on retail prices rather than wholesale but in addition to the inclusion of food, as many other items as possible should be brought in; rent, fuel, light, clothing, and various articles and services, the cost of which must be borne by the income of the wage earner's family.

To create a satisfactory index of changes in the cost of living is a difficult task. For a nation as large in its territory as the United States it is a tremendous task.

"In 1917, in order to settle the constant disputes in the shipbuilding industry, the Shipbuilding Wage Adjustment Board of the Emergency Fleet Corporation entered into an agreement with the unions involved to readjust wages at in-

tervals of not less than six months, if the majority of a craft or crafts at a plant requested it, on the basis that there had been a general and material increase in the cost of living."[1]

To find out if there had been an increase and if so, to what extent, The United States Bureau of Labor Statistics in 1917 undertook investigations in the principal shipbuilding centers. Expenditures of families in thirty five communities in 1917 and 1918 were taken and through prices collected from local merchants, the increases in cost between 1914, 1915, 1916, 1917, and 1918 were figured. No efforts were made to create a desirable standard of living but only to measure changes in the cost of keeping up the existing standard on the basis of changing rents and retail prices. These estimates for individual localities were not combined into an index for the country as a whole but the prices in eighteen communities later served as the basis, through December 1917, for the Bureau's present index of the cost of living in the United States.

Almost immediately after this, the Commissioner of Labor Statistics had made extensive investigations of the cost of living of families of industrial workers in varied parts of the country. Over 12,000 families were included in this survey. These results were formulated into indices and were accepted as official by the various war time wage adjustment boards.

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1. U. S. Bureau of Labor Statistics, Monthly Review for March 1918, pp. 74-75.

Where investigations brought to light the fact that some wage rates did not allow the recipients a standard of health and comfort, it was agitated that the cost of living index should be overlooked and that wages should be arbitrarily increased to this health and comfort level, a level which would maintain the productive efficiency of the worker at the highest peak. While this idea of a "living wage" was given approval by the National War Labor Board, the Board did not apply the foregoing principle because of the unusual war time conditions. Instead it adhered to the idea of adjusting wages in accordance with increased living costs.

II. The following is a combined index of the[1] most probable movement of the cost of living for the period 1890 to 1928

Year	Index of Living Cost[a] 1890-99=100	Year	Index of Living Cost[a] 1890-99-100
1890	104	1910	128
1891	101	1911	132
1892	102	1912	133
1893	100	1913	137
1894	97	1914	139
1895	97	1915	136
1896	99	1916	149
1897	100	1917	179
1898	100	1918	218
1899	102	1919	247
1900	106	1920	286
1901	108	1921	246
1902	111	1922	229
1903	116	1923	234
1904	115	1924	234
1905	115	1925	240
1906	119	1926	241
1907	126	1927	237
1908	121	1928	235
1909	121		

a. Agricultural areas excluded.

1. Douglas, Paul H. "Real Wages in the U. S. 1890-1926", p. 60

Topic Three.

Money Wages and Real Wages.

A. Money or nominal wages are actual wages paid in money. This type of wage simply represents the amount of money that is secured for a day's labor. In any consideration of wages for the purpose of showing the welfare or prosperity of the laborers at various times or places, it is essential to take into account differences in the level of prices. High wages may be rendered neutral by high prices and vice versa. To ascertain the welfare of the laboring class, it is necessary that we represent wages in terms of the amount of goods that the money will purchase. When thus represented, we use the term "real wages" as opposed to money wages.

Real wages are the actual commodities that money wages will purchase. If the prices of food, clothing, and shelter move upward more rapidly than the price of labor, real wages will decline even though money wages increase. The concern of the employer is centered in money wages; the laborer's concern is in real wages. From the employee's viewpoint, real wages is the amount of goods that the money wages will buy.

If the worker took his recompense in shoes or whatever article he had produced, it would be necessary for him to sell the shoes in order to purchase fuel and food and also to pay the rent of his house. This is not an easy matter; so the worker prefers to receive money because of the obvious advantages. Just because the worker receives money as his remuneration should not cause us to overlook that what the laborer truly and

really works for is not money but bread, clothes, fuel, and all the other things which he desires. These constitute his real wages; provided he secures more of them, it is immaterial whether or no he receives more or less money. If fuel, rent, clothing, or food become more costly than usual, the wages of all workmen actually decrease. From another viewpoint, everything which results in commodities being purchased at a lower price makes for an augmentation of the real wages of the laborer because he can secure more goods in exchange for the same money wages.

B. Francis Walker defines real wages as the "remuneration of the laborer reckoned in the necessaries, comforts, and luxuries of life." Walker shows that wages may be evidently the same and yet be dissimilar on account of the following facts:-[1]

1. Changes in the purchasing power of money.

2. The method of payment, as when the laborer is furnished with his food or lodging, or the right to purchase articles below wholesale prices. Sometimes the foregoing are added to the money wages of the laborer.

3. The presence of more chances in some avocations than in others for extra earnings by the worker himself or by members of his family.

4. The greater steadiness of employment in some lines of industry than in others.

5. The longer power of continuance of the capacity to labor in some avocations and some countries than in others.

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1. Gide, C., Principles of Political Economy, p. 493.

1. Real wages constitute the actual amount of wealth, social well-being, obtainable for a day's labor. The social welfare of the wage-receiving class of the community, a class which is increasing in size as the complexedness of society advances, is always indicated without a possibility of failure by the general rate of real wages.[1] But this is not necessarily the case with nominal wages. Whether or not an advance in the rate of money wages shows progress in the social condition of the wage-receivers depends upon whether or not it is accompanied by an equal rise in real wages. This may or may not be the situation. e. g. If money wages should advance from $4.00 to $4.50 a day and the price level of commodities upon which those wages were spent advanced in the same proportion, there would be nothing for the worker to be exultant about. The $4.50 would exchange for no more of the varied commodities than the $4.00 previously did. Under such circumstances, no more wealth could be secured for a day's labor than previously, and so, no progress in the social welfare of the wage earner would result. And if, as is often the case, the increase in the price level should be relatively greater than the advance in the nominal wages, the quantity of wealth obtained for a day's labor would be even less than before. Thus real wages would actually have fallen while money wages advanced 12½%. And on the other hand, a drop of 10% in the price level, other things remaining the same, would constitute an advance of 10% in real wages without any change in money wages.

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1. Gunton, George-"Wealth and Progress," p. 474

2. The death rate may be used as an index of real wages. If the income is insufficient to maintain the family in health, it results in the fact that the death rate will be high. F. S. Nitti said in 1896, "Partial starvation does not act at one blow, nor does it kill, but the people, or the class afflicted by it either pines slowly or does not develop. Slackness in muscular energy, which is made especially evident in weak labor force, low stature, an inexpressible tendency toward compensating idleness, an emaciated aspect, a low power of resisting disease; these are the inevitable effects of this kind of starvation. The adult often succeeds in shifting the evil to his family, himself being well fed in order to maintain his place in the race for jobs, but his family goes undernourished."[1]

We do not appreciate the significance of a fall in the standard of living of the most poorly paid laborers. In the winter of 1917-18, Doctor Harris of the Department of Health of New York City[2] conducted a survey of 2,000 families whose standard of living had been reduced. Of these 2,000 families, 9% sought charity for the first time, 12% of the families went into debt as the direct result of the lowered real wages; 6% took in boarders, never having taken in boarders before; 2,000 cases of sickness were recorded; 13% of these cases of sickness were definitely retarded because of the low standard of living; 37% of the families eliminated meat from the diet; and in 17% more, the amount of meat was reduced. In about 40% of the families, eggs were eliminated from the diet; in

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1. F. S. Nitti, "The Food and Labor Power of Nations", The Economic Journal, 1896, p. 50, March

2. I. L. Harris, "Some Aspects of the High Cost of Living", The American Journal of Public Health, July 1919, p.491

30%, butter; 6% dispensed with sugar, and what is perhaps worst of all, 300 families gave up bottled milk, because of the fall of real wages.

Can we say that large numbers of wage earners are not getting a living wage? The question naturally occurs as to how they live if they do not receive a living wage? The opinion is sometimes held that any wage that workers work for is a living wage, since in order to work they must be alive. The answer is that workers trying to live on less than a living wage do not live on it. The wage is for the family as well as the wage earner. Sometimes the income of the family is often a little larger than the income of the chief wage earner, perhaps ten per cent greater on the average. While this might have unwholesome effects upon the women and children, there is an increase in the amount to be spent. However, not all laborers are married; nor do all have children.

Although the chief wage earner might live, this does not mean that the family will live. Evidence leads us to believe that poverty falls least severely upon the husband and most severely on the wife. The clothing account item in various budgets seems to bring out the fact that when the standard of living falls, standards of clothing for the wife are sacrificed before the standards of clothing of the husband.[1]

Inferior breeding leads to deterioration. The idea of

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1. W. F. Ogburn, "Standard of Living Factor in Wages", American Economic Review, March 1923, (Supplement) p. 126

the living wage is that of maintenance, and in the case of children, growth. Boas has brought out the fact that the children of poor parents on the average are smaller than children of well to do parents and their rate of growth is retarded. The fact that the wage earner lives and works is not proof of the fact that his family is living. Besides the worker himself might be deteriorating more rapidly than the regular course of events warrants.

The studies of the Children's Bureau of the Department of Labor in relation to the infantile death rate show very clearly that families do not live on less than a living wage. Evidence is present which shows that for the very low income groups, the death rate for infants under one year of age is very high. The correlation of the general death rate with the infant mortality rate is about 0.8. So there is a high degree of correlation.[1]

In order to determine the movement of real wages it is necessary to ascertain the relation between the movement of wages and earnings on one side and the cost of living on the other. And so it is necessary to secure an exact index of the cost of living for workmen. (see above, p. 6)

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1. Ibid, p. 127

C. Average Annual Earnings[1]
Relative Money Earnings
Real Earnings in All Industries.

	All industries[2] excluding farm labor			All industries including farm labor		
Year	Average Earnings	Relative Earnings[a]	Real Earnings[a]	Average Earnings	Relative Earnings[a]	Real Earnings[a]
1890	$ 486.	103	99	$ 438.	104	100
1891	487.	103	102	438.	104	102
1892	495.	104	103	445.	105	104
1893	480.	101	101	430.	102	102
1894	448.	95	98	400.	95	98
1895	468.	99	102	415.	98	101
1896	462.	97	98	411.	97	97
1897	462.	97	98	411.	97	97
1898	468.	99	98	417.	99	98
1899	480.	101	99	428.	101	99
1900	490.	103	98	438.	104	98
1901	508.	107	100	454.	107	100
1902	519.	109	99	467.	110	100
1903	543.	115	99	489.	116	100
1904	540.	114	99	490.	116	101
1905	554.	117	102	503.	119	104
1906	569.	120	101	520.	123	103
1907	595.	126	100	542.	128	102
1908	563.	119	98	516.	122	101
1909	594.	125	103	543.	128	106
1910	630.	133	104	574.	136	106
1911	629.	133	100	575.	136	103
1912	646.	136	102	592.	140	105
1913	675.	142	104	621.	147	107
1914	682.	144	104	627.	148	107
1915	687.	145	106	633.	150	110
1916	765.	161	109	708.	167	113
1917	887.	187	105	830.	196	110
1918	1115.	235	108	1047.	248	113
1919	1272.	268	108	1201.	284	115
1920	1489.	314	110	1407.	333	116
1921	1349.	285	116	1233.	291	118
1922	1305.	275	120	1201.	284	124
1923	1393.	294	126	1299.	307	131
1924	1402.	296	126	1303.	308	131
1925	1434.	303	126	1336.	316	132
1926	1473.	311	129	1376.	325	135
1927	1299.	309	130			
1928	1324.	315	134			

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1. Douglas, Paul H., "Real Wages in the United States, 1890-1926", p.392

2. Industries are:
Wage earners in manufacturing, coal miners, postal employees, teachers, wage earners in steam railroads, ministers, government employees, (executive department), gas and electricity, farm labor, clerical workers, (manufacturing and steam railroads), street railways, telephone, and telegraph.

a. 1890 to 1899 equals 100

1. Unemployment and Real Wages.

The previous table has measured only the relative progress of those who continue to be employed in industry. The tables do not take into sonsideration the relative proportion of the working class group which is unemployed in one year as compared with another. It does not yield much satisfaction to the man who has no job to have stated to him that those workers who have the good fortune to possess jobs have fared well in recent years. So, if one try to ascertain the progress of the wage earners as a group, there must be taken into consideration the changes in the amount of unemployment, and by combining them with the relative real earnings of those who have been employed, arrive at an index of the relative real income which the working class as a unit has received.

If one do not include an allowance for unemployment, an entirely false picture might be portrayed. Let us assume that a certain industry employs 50,000 men at the height of prosperity. When the business depression stage of the cycle arrives 10,000 men are laid off and can not secure work elsewhere. Simultaneously, the cost of living decreases 10% and while the earnings of those who are still employed decreased 5%. If we consider only the 40,000 who are employed, the index of real earnings will portray an increase of over 5%. (Money wages divided by the cost of living.) But it would be misleading to state that the working class population as a group is now in

better circumstances than it was previously because there are now 10,000 persons who were formerly self-supporting and who must be supported by either public or private charity or by those who are still employed.

It must not be considered that the working class in practice would be divided into two entirely separate groups, namely the eighty per cent who are still at work and who have made a gain of over five per cent, and the twenty per cent who have lost their employment and their income. Although not always true, we can say as a generality that while men and women work as separate individuals, they live within family units and pool their incomes more or less for the purpose of meeting the expenses of living. So, the unemployment of our one fifth might draw down those who are still employed to below their former level. The earnings of the family must of necessity be spread over a larger number than formerly. In order to secure accurate information and knowledge of the relative economic well-being of the group, we must take into consideration the unemployment factor.

But to secure such accuracy it is necessary to have an index of relative unemployment, an index which is very difficult to obtain. The following index has been created from a group of diversified sources because in our country, we have not as yet any single, accurate method of securing unemployment figures.

A. Unemployment in Manufacturing, Mining,[1]

Building Trades, and Transportation.

Year	Total Labor Supply in thousands	Total Unemployed in thousands	Percentage Unemployed
1897	7,015	1266	18.0
1898	7,164	1214	16.9
1899	7,327	766	10.5
1900	7,527	755	10.0
1901	7,805	584	7.5
1902	8,347	569	6.8
1903	8,702	609	7.0
1904	8,748	883	10.1
1905	9,349	622	6.7
1906	9,817	577	5.9
1907	10,129	695	6.9
1908	10,103	1654	16.4
1909	10,394	925	8.9
1910	10,726	774	7.2
1911	10,921	1025	9.4
1912	11,124	775	7.0
1913	11,357	936	8.2
1914	11,570	1899	16.4
1915	11,725	1822	15.5
1916	12,189	774	6.3
1917	12,841	774	6.0
1918	13.081	719	5.5
1919	12,841	880	6.9
1920	13,006	938	7.2
1921	12,599	2913	23.1
1922	12,777	2338	18.3
1923	12,837	1010	7.9
1924	12,573	1506	12.0
1925	12,552	1120	8.9
1926	12,793	962	7.5

We cannot use the general index of unemployment in manufacturing, transportation, construction, and mining as the employment index to correct the statistics of average annual earnings which are given on page thirteen, because there would be inaccuracies in such a procedure. In our average annual earnings of the miners, allowance has been made for unemployment. To make another deduction for unemployment would be wrong. In addition it is very likely that employment is much steadier and unemployment minimized in such industries as the telephone and telegraph services, gas and electric plants, Government employment, teaching and the ministry than in other industries. So, it is much more advisable to utilize these unemployment percentages to the particular groups to which they relate.

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1. Douglas, Paul H., "Real Wages in the United States, 1890-1926", p.460/

B.

Absolute and Relative Average Annual Earnings of Those Attached[1] to the Manufacturing, Transportation, and Coal Mining Industries After Allowance for Unemployment, Together With the Relative Purchasing Power of These Earnings.

Year	Average Annual Earnings of Those Attached to the Industries, in Dollars.	Relative Money Earnings[a]	Relative Real Earnings[a]
1890	$ 434.	110	107
1891	431.	110	109
1892	446.	114	112
1893	401.	102	102
1894	340.	87	89
1895	379.	96	99
1896	358.	91	92
1897	363.	92	93
1898	370.	94	94
1899	412.	105	103
1900	427.	109	103
1901	453.	115	107
1902	471.	120	108
1903	492.	125	108
1904	469.	119	104
1905	495.	126	110
1906	511.	130	109
1907	537.	127	109
1908	454.	116	96
1909	516.	131	108
1910	561.	143	111
1911	541.	138	104
1912	566.	144	108
1913	587.	149	109
1914	544.	138	100
1915	544.	138	102
1916	671.	171	115
1917	795.	202	113
1918	1027.	261	120
1919	1167.	297	120
1920	1379.	351	123
1921	1008.	256	104
1922	1027.	261	114
1923	1256.	320	137
1924	1196.	304	130
1925	1262.	321	134
1926	1304.	332	138

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1. Douglas, Paul H., "Real Wages in the United States, 1890-1926" p.468.

a. 1890 to 1899 equals 100.

Relative Money and Real Annual Earnings of the Unskilled,[1] After Allowance for Unemployment, but Excluding Part Time.

Year	Relative Money Annual Earnings[a]	Relative Real Annual Earnings[a]
1897	96	97
1898	98	99
1899	106	105
1900	107	102
1901	114	107
1902	116	106
1903	119	104
1904	116	102
1905	122	107
1906	127	107
1907	130	104
1908	116	96
1909	130	108
1910	132	104
1911	130	99
1912	136	103
1913	140	103
1914	129	93
1915	135	100
1916	164	111
1917	197	111
1918	272	125
1919	295	121
1920	316	111
1921	204	84
1922	211	93
1923	270	116
1924	261	112
1925	281	118
1926	287	120

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1. Douglas, Paul H., "Real Wages in the United States, 1890-1926", p479.

a. 1897 to 1899 eq uals 100

Causes for the Advance in Real Earnings.[1]

1. The Advance in Average Productivity Per Worker

Basically, the increase in real wages can be attributed to the increase in physical and value productivity. Real wages had their greatest increase during the time in which the productivity per worker had advanced tremendously. (1919-1926)

The increase in production might have with it a fall in the general price level, a steadiness of this level, or an increase in general prices. If a decline occur in the price level as the output increases, the retention of the same wage will allow the workers to purchase more than before. If the employer "cut" the wages that he gives to his employees, he would increase his profits because all of the increase in output would fall to him. But these profits would act as a stimulant upon competitive bidding for labor upon single employers with the result that money wages would rise and thus, this advance would bring a rise in the real earnings.

If the price level were to remain the same, the foregoing force would operate. If wages were kept at the same level, no immediate increase in real earnings would accrue, but profits would increase markedly since the sale price remains the same while the labor costs per unit would be greatly lowered. Then the enterpriser would want to enlarge his plant and as a result there would be a consequent bidding up of wages.

An advance in the price level might appear as an arduous obstacle in the path of securing an increase in real earnings. This idea is due to the tendency of wage rates to loiter behind the cost of living. The employer would make a two-fold

1. Douglas, Paul H., "Real Wages in the United States, 1890-1926," chap. 31

gain if wages remained constant. These employers would be producing more articles than ever before, but they would be selling each of them at a higher price while their labor costs would be less than that of a previous period. These expectations and the securing of large profits through expansion result in competition for the workers.

Relative Output Per Man Hour in Manufacturing[1.]

Year	Relative Output Per Man Hour
1899	100
1900	96
1901	103
1902	106
1903	104
1904	109
1905	119
1906	120
1907	117
1908	111
1909	119
1910	118
1911	113
1912	125
1913	129
1914	122
1915	132
1916	133
1917	125
1918	122
1919	125
1920	133
1921	132
1922	157
1923	160
1924	163
1925	177

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1. Douglas, Paul H., "Real Wages in the United States, 1890-1926," page 547.

2. The Part Trade Unions Have Taken in Securing Wage Increases.

Many claim that it is only through the trade union organization and improvement in their bargaining powers that the wage earners can improve their status. This bargaining theory of wages is so prevalent that a brief explanation is not out of place. Under this theory, employers and employees are opposed to each other as bargainers in a market wherein their forces are about equal. Wages are determined in the same manner as other values; namely by the appraisal that each party to the bargain has formed concerning the value of the subject of the bargain and the comparative bargaining strength and knowledge of the bargainers. Although there are apparent defects in this wage theory, we can say that the bargaining power is a mighty factor in the determination of wages. So in order to ascertain the relative effect which unionism had on the increase of real wages, we shall examine the history of the period that we have covered.

During the nineties and the early years of the twentieth century, the unions were able to secure for themselves higher wages and shorter hours than the great mass of workers and the foregoing have been held down to the present day. While the above differences may be assigned to other factors such as trade skill we can not overestimate the accruals from collective bargaining.

From 1914, the wages in the non-union manufacturing industries have increased almost as rapidly as have those in the union manufacturing trades. There is a tendency when the trade is unionized for the first time for the wages to increase noticeably during the early stages of organization but thereafter the rate

of increase received by the members does not greatly exceed the increase in non-union industries. Thus, the earnings in the soft coal fields increased very much after unionization came in 1897. The same result followed in the earnings of the hard coal miners as the result of the strike (promoted by the union) in 1902. But during later years the money wages in these fields did not increase as the cost of living increased and the result was a diminution of real income.

The largest gain in the real wages of the workers has come about since 1920, or during the years in which the trade unions were decreasing in membership and strength. The greater part of the above gain came between the period from 1921 to 1923 at which time the unions were undergoing a reduction in members. In the Spring of 1920 there were about five million members in American trade unions. The decline in membership from 1920 to 1924 amounted to about one and a quarter million persons or 25% of those who belonged in 1920. The causes for this membership decline were varied. The depression of 1921, pressure of unemployment, the efforts of employers to "break" the unions on one side and the employer efforts at welfare work, such as group insurance, personnel management, may be considered as causes of the weakening of the unions.

However, we must modify our conclusion that the trade unionism was not the important cause for the advance in wages during this period. Prices may fall and thus there is a reduction in the cost of living but labor hangs on to a wage level once obtained and numerous instances are on record wherein labor has accepted unemployment rather than suffer wage cuts. So the employer has to resort to devices other than cutting the wages in order to

decrease his costs. This may be accomplished by the introduction of improved machinery and processes, by better management, and through the elimination of waste. Employers were warned around 1920 that if attempts were made to reduce wages on a large scale there would be resultant organizing campaigns by the unions. So it might be difficult to state that the potential power of the unions had no effect on the non-union employers' policy and consequently, of the movement of real wages in non-union industries.[1]

It might also be given that this urgency of wages, which were high in comparison with the price level, compelled many employers to increase their production and to reduce other expenses in order to survive. The foregoing idea really asserts that instead of the increased productivity in industry as the cause of the advance in real wages, the advance in real wages gave impetus to this increased productivity idea or theory.

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1. George Soule, "The Movement of Real Wages", American Economic Review, March 1926,(Supplement) p. 59

3. The Decrease in the Net Volume of Immigration.

The decline in the rate of gradual increase in the labor supply may also be considered as a cause for the advance in real wages. This factor, in addition to the increase of capital have resulted in a relative scarcity of labor in comparison with capital than before, and as a result the employers have had to give more for labor. The reasons for this slowing up of the rate of increase of the labor supply may be attributed to the decrease in the amount of immigration and by the decline in the birth rate.

We can not overlook the decrease in immigration during the war period and its restrictions by the 1921 and 1924 laws. The foregoing have resulted in a smaller increase in the working population than would otherwise have occurred.

Net Volume of Immigration, United States.[1]

Fiscal Years	Immigrants Number in 1,000s	Emigrants	Net Surplus of Immigrants
1908	783	395	388
1909	752	226	526
1910	1042	202	840
1911	879	296	583
1912	838	333	505
1913	1198	308	890
1914	1218	303	915
1915	327	204	123
1916	299	130	169
1917	295	66	229
1918	111	95	16
1919	141	124	17
1920	430	288	142
1921	805	248	557
1922	309	199	110
1923	523	81	442
1924	707	77	630
1925	294	93	201
1926	304	77	227
1927	335	73	262

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1. Statistical Abstract of the United States, 1923, page 75
Statistical Abstract of the United States, 1928, page 91

4. Other Factors in the Increase of Real Income.

Thus far, we have considered the variations of the real income of those who have either been employed or who have tried to secure employment. Such a consideration does not really bring out the relative condition of the entire wage earning and salaried community, which includes the wives, the children, and other dependents upon the wage earners for support. The greater part of the wage earning class belong to a family group, and as the income of these workers is shared within this family circle, their fortunes are tied up with those of their families.

The success of the family group is dependent not only upon the real wages of those who are employed and who seek employment, but also upon first, the number of those with whom their earnings are shared; second, the relative number of persons who are gainfully employed; third, the amount of free services which are created for their usage by nature, by the state, or by other agencies. Even though a man's wage were insufficient to buy more in 1926 than in 1890, if there were a decrease in the average size of the family (due to declining birth rate), then the constituents of that family would be better off. This is because the same income would now be divided among fewer people and the individual share would be greater.

A. Decline in the Size of the Family.[1]

Faulty census statistics show that there has been a decrease in the average size of the "household", (which includes Sing-Sing Prison, Pennsylvania Hotel, because at these places people share the same table.) In 1890 the average number in the census " household " was 4.9; in 1900, 4.7; in 1910, 4.5; and 1920, 4.3.

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1. Ibid, p. 482

Since 1920 the birth rate has fallen. The rates for the registration areas have been:

Year	Crude Birth Rate Per 1000 Population [1.]
1920	23.7
1921	24.3
1922	22.5
1923	22.4
1924	22.6
1925	21.4
1926	20.6
1927	20.7

B. Decrease in the Relative Importance of the Juvenile Population.

There is a smaller proportion of children who need to be supported. The percentages of those under ten years have formed of the total population have declined as follows:

Year	Percentage	Relatives (1890-100) [2.]
1890	24.3	100
1900	23.8	98
1910	22.2	91
1920	21.7	89

C. Relative Proportion of the Adult Population Gainfully Employed.

As a result of the widespread increase of labor saving contrivances in the home, and the fact that many tasks which were formerly performed in the home, (washing, sewing, and cooking) are now delegated to outside agencies. Thus women have leisure time and many seek employment for wages in industry. The proportions of women and girls over ten years of age who were gainfully employed in the Census years were as follows:

Year	Percentage [3.]
1890	17.4
1900	18.8
1910	23.4
1920	21.1

The percentages which the gainfully occupied males have formed of the total number over ten year periods have been 79.3 in 1890; 80.0 in 1900; 81.3 in 1910; and 78.2 in 1920.

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1. Births, Still-Births, and Infant Mortality Statistics--Public Health Reports, July 20, 1928, page 1898.
2. Abstract of the Fourteenth Census of the United States, 1920, p.135
3. " " " " " " " " " ,1920, p.

D. Added Government and Charitable Services.

The various divisions of government are granting additional services to the public in the form of health, education, highways, recreation, etc.

Per Capita Expenditures of State and Local Governments.[1]

Year	State	Local	Combined
1890	$ 1.22	$ 7.22	$ 8.44
1903	2.26	11.27	13.53
1913	3.97	19.10	22.07
1924	14.14	48.21	62.35

The point might be made that the foregoing do not add to the income inasmuch as the amounts which the wage earners have paid in taxes, directly or indirectly, should be subtracted from these sums. It is comparatively rare that the workers pay direct taxes. In those instances wherein the tax resulting from improvements is passed on to the wage earner in the form of higher rents, there has been provision made in the cost of living index. So we might say that the state and local disbursements represent an almost complete increase in average free income.

The outlays of Churches, charitable relief organizations, and educational institutions make for an increase in income. Although wage earners' children do not take advantage of the privately endowed college or university, there is some utilization. Employers' benefit and welfare projects should merit consideration.

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1. Bulletin 111 of the National Industrial Conference Board, "Cost of Government in the United States," 1926, page 86

Other possible causes for this increase in real wages may be assigned to the Prohibition Law and the decline from 1919 to 1923 in the exchange value of food products at the farm. Prohibition is a controversial subject and hence it is difficult to measure its economic effects. From varied sources we are led to believe that greater regularity in attendance has come about and the "Monday morning absences" have decreased. That these factors would increase real earnings is obvious.

The Decrease in the Exchange Value of the Food Products.[1]
(1919-1923)

Year	Purchasing Power of Farm Food Products.
1919	102
1920	93
1921	79
1922	82
1923	87

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1. G. F. Warren, "The Agricultural Depression", Quarterly Journal of Economics, vol.38,p.197.

E. Some Probable Consequences of the Increase in Real Earnings.

After we have determined that there has been an increase in the earnings of those who are employed, the question can be asked what are some of the probable effects. The first is the increase in the net volume of savings on the part of the earners of wages which has been so widely noticed during the past few years. The amount of life insurance now in vogue has increased considerably during the past ten years. Also many workmen have increased or commenced the purchase of stock of those concerns wherein they are employed.

Second-; As a concomitant in this advance in real wages and income there has been a great increase in attendance in high schools and colleges.

Growth in Number and Percentage of Students Attending Public High Schools [1.]

Year	Total Number Attending in thousands	Number per 1000 Population	Number per 1000 Juveniles (15 yrs. to 19)
1890	203	3.2	31
1900	519	6.6	67
1910	915	9.9	101
1920	1857	17.4	197
1924	2538	22.6	254
1926	2844	24.9	278

Growth in Number Enrolled in American Colleges & Universities. [2.]

Year	Number Enrolled in thousands	Number per 1000 of Age Group 20-24
1890	101	16
1900	168	23
1910	255	27
1920	424	46
1924	607	62
1926	726	72

1. Bulletin 40, 1925, Bureau of Education
Bulletin 32, 1927, Bureau of Education

2. Bulletin 40, Statistics of Universities, Colleges, and Professional Schools, Bureau of Education, 1927, p.4

The third effect is in relation to trade union policy. We can say that trade unionism might have had its origin in the struggles of the workers in order to prevent selfish exploitation on the capitalists' part but now (and not in all cases) organized groups of American workers look upon their associations as enterprises which exist for the purpose of obtaining an increased share of the products of industry for their members who are already above the subsistence level of living. The efforts of organized labor along the foregoing lines may be seen in the labor banking movement and the trade union insurance company. These represent the answer of labor reactions to employee ownership and to group insurance. So we have a slowly developing new type of competition between employers and trade unions, namely a conflict for the economic surplus of the workers and for the savings which are being accumulated by them.

Fourth; As a result of the increase in real earnings, there is a comparative satisfaction on the part of most groups with our political and economic system. Those workers who are not members of trade unions have been sharing in this increase of real earnings and are not susceptible to unionization as they have been previously. This feature and the continuance of unemployment and the creation by the employers of varied types of industrial democracy might be sufficient causes

why the trade union membership is still at a figure which is considerably lower than the high water mark of 1920.

There has come about a diminution of the former bitter opposition to the capitalistic system that was especially noticeable about a decade or two ago. On the surface there seems to be less interest in the various types of socialism and there is not much discussion concerning the creation of an independent labor party at the present time. The Socialist movement has suffered greater membership losses than have the trade unions. The comparative voting strength that the presidential candidates of the former have received is as follows:

Year	Total Vote	Percentage of Vote.[1]
1904	402,000	2.9
1908	421,000	2.9
1912	897,000	5.9
1916	585,000	3.2
1920	920,000	3.2
1928	268,000a.	.7

a. The Socialists did not run a separate candidate in 1924 but supported R. La Follette.

We must not imagine from the foregoing that all of the workers in America are living in prosperity. On the contrary there are two classes which are suffering. The first consists of a large percentage of the families of the less skilled workers wherein there are two or more dependents. The second group who are suffering consists of the unemployed.

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1. Douglas, Paul H., "Real Wages in the United States, 1890-1926,"p.573

A. Preface to Standards of Living.

Preparatory to discussing standards of living, we can ask ourselves the following questions. What does it cost to live? What does it cost to live in one place compared with another? What does it cost to live at one period compared with another?

In regard to the first question, before we can give an answer we know that the cost of living is greatly dependent upon the person, the locality, and the time. The person might have peculiarities which may arise out of varied individual idiosyncrasies or because of the social class to which he belongs. The locality affects the answer due to the fact that various sections differ in geographical, economic, and social conditions with the result that different demands are made upon the income. In regard to time, the cost of living for an individual will change from one period to another as retail prices and the style of living change.[1]

In the efforts to ascertain the cost of living, the unit of measurement is the family although we know that special studies have been made to secure the cost of living for the single woman who lives independently of any family group. Very little attention has been devoted to the securing of figures for the single and unattached man because this individual is presumed to be able to care for himself.

Can we measure the cost of living if there are so many conditional elements? We can easily recognize that the ex-

1. National Industrial Conference Board, "The Cost of Living in the United States", p. 9

penditures of any given family group can be secured with a high degree of accuracy if the proper records are kept. If you can obtain sufficient numbers of such records for "similar families, similarly situated" it is possible to arrive at an average that might be considered typical for the class to which it has reference. Cost of living investigations must concern themselves with specific classes of the community and do not refer to the population at large. Such is due to the fact that we can find similar conditions among more or less definite social classes.

How are the costs of living distributed? There are many and varied outlets for the expenditure of the family income. For simplification, these expenditures for the maintenance of the family have been assigned to the following groups; food, fuel and light, housing, clothing, and sundries. With the exception of sundries, the foregoing seem self explanatory. Yet when an effort is made to bring the expenditures of a considerable number of people into these groupings, the difficulties commence.[1]

The expenditures of any family for food can be clearly ascertained if accurate records are kept. For housing, the situation becomes more difficult. Many families own their own homes-others rent them, while a large percentage own them subject to mortgage. The task is very simple when rent is paid; but what shall we do when a room or rooms are sublet? Shall income from such an origin be subtracted from the cost of housing? This problem of ascertaining the housing costs becomes more difficult when the house is either free from debt or is liable to mortgage. There is an exceedingly high degree of

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1. Ibid, p. 12

relationship between housing and fuel and light. In many cases the two are not divisible. In those cases where there is a separation, the nature of the dwelling affects the expenditure for fuel and light. Sometimes we can not separate the two as in the case of the homes of those who dwell in the city apartment houses wherein the families pay for the heat and the use of the apartment in one price. In the high grade apartment house, this price paid may also include the various types of personal service. (doormen, etc.)

In such cases as the above the investigator in many instances avoids the difficulties by omitting them. As a result the field is limited but it seem better to omit such cases which call for estimating because in the entire survey there is much unavoidable estimating. So it seems preferable to eliminate all unnecessary estimation.

In regard to the expenditures of the family for clothing, it seems to be readily ascertainable in theory at least. The contents of the group termed sundries occasion great difficulty. Under this heading we find such an assortment of outlays, some of which are periodic, while others occur at rather infrequent intervals. Under the other groups, there is the necessity of expenditure up to a certain point, for each group represents a necessity. You can not dispense with any of them entirely although a person may, except as concerns light and heat, have a wide range of selection as to what articles shall enter into his consumption.

Under our heading sundries we find that some of the outlays are necessary (health) while others are entirely concerned with choice. Such items as church contributions, tobacco, candy, etc. come under the term sundries.

B. Standards of Living.

" A standard of living may be defined as the sum of those necessaries, comforts, and luxuries which any social group insists upon as essential to its well being and happiness".[1.]

"What is a standard of living? From the economist's viewpoint, a proper standard of living means the amount of economic goods which is required to maintain the highest industrial efficiency of the individual or family under consideration."[2.]

"Each class of people in any society is accustomed to enjoy a greater or less amount of the comforts or luxuries of life. The amount of comforts or luxuries customarily enjoyed by any class of men forms the "standard of living of that class."[3.]

"The phrase 'standard of life' expresses the complex thought of that measure of necessities, comforts, and luxuries considered by any individual to be indispensable for himself and for his children; that measure that he will make great sacrifice to secure. This differs from land to land, from class to class, and from time to time. In the Asiatic countries, it is so low that it touches in large classes the minimum of subsistence."[4.]

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1. Lutz,H. and Stanton,B. "An Introduction to Economics", p. 330
2. Nearing,Scott and Watson,F.D., "Economics", p.
3. Bullock,C.J., "Introduction to the Study of Economics", p.126
4. Fetter,F. A. "Economic Principles", volume 1, p.417.

The standard of living of a family or an individual is representative of the number and character of desires customarily satisfied. The following represent various standards of consumption.

1. The pauper standard of life is that which barely keeps body and soul together.

2. The minimum of subsistence which is based on mere animal existence and which allows little or nothing for the needs of men as social creatures.

3. The health and comfort standard. This level not only takes care of the basic wants of man such as food, shelter, etc. but also for some comforts, insurance, education, and recreation.

4. There is the standard of luxury. This includes not only the necessities and comforts needed by man but also whatever luxuries he might wish.

The standards of living represent a historical development, molded by environment and by the inborn characteristics of man.

There were two factors which early appeared in the development of American standards of living and gave them a difference from European standards. These were the wealthy, undeveloped economic resources and the early widespread diffusion of education. The former offered high hopes of gain through the exploitation of these resources and the latter gave evidence of a new social order under which the children of the workingman and the children of the rich were to be given equal educational opportunities. In Europe, the lack of education created barriers between groups and hence, under this caste system, the upper class was one of achievement.

This phrase, standard of living, which for the statistician shows the aggregate of articles which enter into the living expenses, has significance only in relation to some special group. There is no general standard of living inasmuch as the way of living is so different among individuals and families that the idea of a definite standard or measure for the community as a whole is untenable.[1]

For some income classes, there is the possibility of arriving at an approximate standard. As concerns the persons of small incomes, the implacable necessities of life compel the expenditure of a much larger percentage of the total income than among those persons who have incomes much larger. As a general idea, it can be said that the smaller the item "sundries" is in the total cost of living, the more likely are the usual and ordinary expenditures standardized and the more nearly will an average of observed cases typify a representative allocation of income. Results will differ when the grouping under "sundries" bulks large in the total expenditure and it is more difficult to create an average of standardized disbursements. As the income increases and the total expenditure becomes larger, the former becomes more diversified. There is a wide choice in the items which are grouped under "sundries" and this flexibility applies to the other groupings in the family budget. Different families might be sparing or wasteful in regard to the family table and their expenditures for clothing may or may not be representative of their income. The purchase of an auto and the resultant expense may cause a

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1. Ibid, p. 16.

diversion of income-a portion which might otherwise have gone to home comforts.

The foregoing ideas explain why studies of the standard of living have been restricted to industrial wage earners and those persons whose income is similar to the former. When studies of the actual standard of living are made it has been found that such studies attract more attention if they limit themselves to families of similar character who live under like conditions.

While it is indisputable as a general proposal that the amount of income fixes the cost of living and thus decide the standard of living, it may be true that in some instances there results a standard of living that is socially undesirable. Some investigations of the cost of living among wage earners are made not only to find out what the conditions are but to ascertain whether they are what they should be. There is some sort of a comparison, implicit or explicit, with some imaginary standard. This imaginary or ideal standard is sometimes purely subjective, based upon unformulated ideas and thoughts of the investigators and as a result, the final facts might fail to be conclusive.

To obtain a more definite basis upon which to ascertain the relation between earnings and the cost of living in certain situations, efforts have been made to establish for a given time and place, family budgets, representative of the minimum or some standard of living and the cost of the standard. The determination of requirements must be based upon broad and careful facts and must have a statistical background. Dietary studies can be drawn upon to show the ideal quantity of nourishment but in regard to the other classes of disbursements, experience must be the guide.

C. The Level of Material Well-being.

In order to point out the rise in the standard of comfort, we feel that it would be helpful to give attention to various items which in themselves indicate and throw some light upon the "level of material well-being" of our Nation.

1. Production of Electric Household Appliances. (U. S.)[1]

	1919	1923	1925	1927
All appliances,				
Value	$38,748,242	$63,914,810	$75,102,165	$72,933,274
Vacuum cleaners,				
Number	977,339	1,240,742	1,107,592	1,091,632
Value	$21,842,439	$35,961,514	$39,971,111	$35,120,788
Flatirons,				
Number	1,407,822	2,434,280	2,936,361	2,937,258
Value	$ 5,646,421	$ 8,198,941	$ 7,998,429	$ 7,247,563
Domestic ranges, Hot plates, etc.				
Number	a.	a.	301,717	366,055
Value	$ 3,444,170	$ 3,676,645	$ 7,900,786	$10,299,148
Air heaters,				
Number	a.	310,363	495,615	306,122
Value	a.	$ 1,862,180	$ 2,027,694	$ 1,248,462
Percolators,				
Number	a.	260,050	434,095	791,726
Value	a.	$ 2,340,446	$ 3,593,496	$ 4,297,395
Toasters,				
Number	a.	476,606	735,856	1,209,484
Value	a.	$ 1,433,409	$ 1,885,780	$ 3,236,484
Waffle irons,				
Number	a.	131,445	315,777	653,893
Value	a.	$ 788,669	$ 1,864,257	$ 3,601,411
Grills,				
Number	a.	184,834	209,318	196,304
Value	a.	$ 923,369	$ 577,628	$ 301,541

a. Comparable data not available.

The total value of all washing machines, clothes wringers, and driers, and ironing machines, for domestic use, totaled about $70,000,000 in 1925; $57,000,000 in 1923; $43,000,000 in 1919; and $8,000,000 in 1914.

No exact figures as concerns electric refrigerators are available.

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1. National Bureau of Economic Research, "Recent Economic Changes in the United States," p.57

3. Sugar.

Apparent Per Capita Consumption of Cane and Beet in the United States in Terms of Raw Sugar, 1888-9 to 1927-28.[1]

Year July to June	Pounds Per Annum	Year July to June	Pounds Per Annum
1888-89	50.96	1908-09	82.18
1889-90	51.37	1909-10	79.72
1890-91	61.01	1910-11	78.14
1891-93	60.81	1911-12	83.85
1892-94	64.88	1912-13	86.34
1893-95	73.73	1913-14	90.41
1894-96	63.32	1914-15	86.95
1895-97	64.65	1915-16	78.66
1896-98	79.00	1916-17	82.25
1897-99	48.07	1917-18	77.75
1898-1900	62.60	1918-19	83.64
1899-01	59.69	1919-20	91.14
1900-02	72.86	1920-21	97.62
1901-03	64.32	1921-22	102.43a.
1902-04	80.10	1922-23	106.61
1903-05	70,15	1923-24	100.21
1904-06	73.35	1924-25	114.43
1905-07	77.20	1925-26	114.67
1906-08	82.87	1926-27	111.17
1907-08	75.54	1927-28	110.16

a. Increased incomes may be thought of as a partial explanation for the advances in per capita consumption of sugar. Enlarged production of the sugar crop on various countries resulted in relatively low prices and consumers indulged their tastes. Prohibition may be given as a contributing factor. The widespread use of fruits has also acted as a stimulant to sugar consumption.

2. Poultry.

The following table shows the poultry receipts at great urban markets and thus it is possible to secure some idea of the consumption of poultry. The greatest increase came during the period from 1920 to 1924.[2]

Year	New York	Chicago	Boston	Philadelphia	Four Markets
	(in millions of pounds)				
1920	101.0	57.3	34.1	21.6	214.1
1921	124.6	65.0	39.9	22.9	252.4
1922	138.2	73.7	44.6	21.3	277.8
1923	163.9	90.3	56.0	24.6	334.8
1924	179.3	88.5	61.3	27.6	356.7
1925	170.3	72.1	46.7	29.3	318.4
1926	192.9	77.6	53.2	32.1	355.8
1927	188.1	63.7	53.3	31.8	337.0
1928	-----	----	----	----	349.0

1. National Bureau of Economic Research, "Recent Economic Changes", p.42

2. Ibid, p. 35

4. There has been an increase in the consumption of fresh fruits and vegetables within recent years. A portion of this growth may be attributed to the emphasis placed on the inherent beneficial qualities of fruits and vegetables by nutrition experts, the medical profession, and home economic courses.

The following table is in car-load shipments and does not really give an accurate portrayal of the increase. The shipments by motor transportation and the sales from roadside stands are not included and so the following numbers may be said to understate rather than overstate.

Car-load Shipments of Leading Fresh Fruits[1]
in Season Following Harvest, 1920-28.

Year of Harvest	Apples June to Jan.	Peaches May to Nov.	Cantaloupes April to Dec.	Grapes June to Dec.
1920	116,117	28,179	22,953	41,310
1921	89,560	27,334	25,815	37,817
1922	113,959	38,405	29,930	59,518
1923	138,134	33,125	25,923	65,336
1924	103,844	39,395	31,496	69,993
1925	127,909	40,845	33,819	81,878
1926	133,848	58,465	33,424	78,590
1927	93,094	41,714	18,757	82,572
1928	-------	56,596	38,600	79,825

The area under cultivation of 19 commercial truck crops, leading fresh vegetables, cantaloupes, watermelons, and strawberries has advanced since 1919 as shown in the following:[2]

In thousands of acres

1919	1,586
1920	1,697
1921	1,436
1922	1,943
1923	2,014
1924	2,373
1925	2,548
1926	2,461
1927	2,435
1928	2,711

1. National Bureau of Economic Research, "Recent Economic Changes", p. 45
2. Ibid, p. 43

5. Manufactured Goods.

From limited figures, the recent tendencies in the consumption of manufactured goods seem rather clear. There has been a tremendous advance in the use of the automobile and with the products connected with it. There has also been a great increase in the utilization of various mechanical devices for household tasks. Within recent years there has been a noticeable purchase of many articles which would have been termed luxury goods a decade or two ago, but that now are appearing so frequently in the average budget that they are no longer regarded as such.

A. Growth of Tobacco Industries.[1]

Item Year	Production in millions.
Cigars:	
1909	6,668
1919	7,072
1925	6,501
Cigarettes:	
1909	6,819
1919	53,120
1925	79,960
Manufactured Tobacco and Snuff:	
1909	431a.
1919	424a.
1925	410a

a. millions of pounds

With the exception of the cigarette branch of the tobacco manufacturing industries, all other branches have suffered a decline in production or have remained stationary. In 1927 production of small cigarettes was over ninety seven billion; over twenty fives as many as in 1899.

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1. National Bureau of Economic Research, "Recent Economic Changes", p.55

B. As regards textiles, various industries under this heading have failed to grow in recent years. However, the slow growth in the production of the old staples has been somewhat offset by the extremely large output in the silk, rayon, knit goods, carpets, and rugs industries. The increase in rayon consumption is outstanding. While this product surpasses silk consumption in regard to poundage, rayon is still very much below silk as concerns value.[1]

Growth of Rayon Consumption
(in thousands of pounds)

Year	Consumption	Domestic Production	Imports
1911	2,120	320	1,800
1919	9,246	8,174	1,072
1923	39,506	36,477	3,029
1925	57,343	51,902	5,441
1926	75,101	65,750	9,351
1927	96,271	80,594	15,677

The introduction of the radio has been a noticeable development in American consumption. The following table gives some idea as to the number of homes which possess radios and the yearly sales of radio equipment at retail.[2]

Year	Sets in Use Jan. 1 (1000s)	Annual Sales at Retail (thousands) Total	Sets	Parts	Accessories
1922	60	$ 60,000	$ 5,000	$ 40,000	$ 15,000
1923	1,500	136,000	15,000	75,000	46,000
1924	3,000	358,000	100,000	100,000	158,000
1925	4,000	430,000	165,000	65,000	200,000
1926	5,000	506,000	200,000	50,000	256,000
1927	6,500	446,550	168,750	21,000	256,800
1928	7,500	-------	-------	-------	-------

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1. National Bureau of Economic Research, "Recent Economic Changes" p.56

2. Ibid, p. 58

C. A marked characteristic of our modern industrial civilization concerns the great increase in the utilization of electricity and electrical devices.

Value of Selected Products of Electrical Equipment Industry.[1]
(in thousands of dollars)

Class of Product	1914	1919	1927
Insulated Wire & Cable	$69,506	$128,682	$209,703
Radio Apparatus	792	8,075	191,228
Batteries, Parts & Supplies	23,402	92,463	150,216
Motors, Parts, & Supplies	39,340	106,986	122,146
Generators, Generator Sets, and Automotive Starter Sets	23,233	91,118	115,179
Telephone, Telegraph, & Fire Alarm Apparatus	24,272	50,956	119,271
Household Heating & Cooking Appliances	3,465	38,748	72,933
Lamps, Incandescent (Bulbs)	17,350	57,647	87,933
Switchboards, Switches, etc.	15,383	26,328	70,801
Transformers, etc.	14,514	27,061	66,611

The greatest change in American consumption has come about as the result of the automobile. This product has not only brought about changes in ways of living but there have been important resultant industrial effects. The following table of the registration of passenger cars and trucks shows the increase in the use of the automobile since the War.

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1. National Bureau of Economic Research, "Recent Economic Changes," p. 56

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Year	Registration Passenger Cars	Registration Trucks[1]
1919	6,771,074	794,372
1920	8,225,859	1,006,082
1921	9,346,195	1,118,520
1922	10,864,128	1,375,725
1923	13,479,608	1,612,569
1924	15,460,649	2,134,724
1925	17,512,638	2,441,709
1926	19,237,171	2,764,222
1927	20,230,429	2,896,886
1928	21,630,000	3,120,000

E. Water consumption gives an idea of the sanitary standard of living in the United States and the comparative data shows the differences in sanitary standards between the United States and Europe. In the following tabulation, allowances have been made for the differences in control of water, either through meters or as a result of scarcity.

Daily Per Capita Water Consumption, in Selected American & European Cities[2]

Country and City	Year	Per Capita Daily Consumption of Water (U. S. gallons)
Germany:		
Berlin	1927	37.8
Hamburg	1927	37.0
England:		
London	1927	43.4
Manchester	1927	42.3
France:		
Paris	1927	47.2
Holland:		
Amsterdam	1926	30.0
Rotterdam	1926	35.0
United States:		
Baltimore	1927	129.0
Chicago	1927	292.8
Cleveland	1927	127.9
Detroit	1927	126.0
New York	1927	142.0
Philadelphia	1927	168.0

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1. National Bureau of Economic Research, "Recent Economic Changes" p. 59
2. Ibid, p. 69

V. Standard of Living Factor in Wages.

During the World War the standard of living and earnings became vividly impressed upon many and a matter of public knowledge. Wage adjustments were frequent and turned on the standard of living issue so that never before had this term "standard of living" received such consideration.

In the years of depression which followed the close of the War, industry tried to rehabilitate itself by lowering the rates of pay in accordance with lowered living costs. This policy was unsuccessful. Industrial depression still remained; not only in the United States but in European countries. In an effort to improve economic conditions, business leaders created a new method of wage determination. The distressed status of the European countries made it very obvious that they could not serve as outlets for American products. The American producers had to concern themselves with increasing the purchasing power of the American consumers. To increase this purchasing power, it was necessary to advance wages and incomes.

The older ways of settling wages based on changes in the cost of living or upon the supply and demand of labor were discarded by many of the arbitration and wage adjustment boards since 1920. The newer way which concerned itself with wage advances as a means of raising standards was finding advocates. The following words of Colonel Robert Stewart, ex-Chairman of the Board of the Standard Oil of Indiana, in December 1922, typify the change.[1]

"It were suicide to attempt to beat down wages and salaries to the bare level of the cost of living, and when I say "living"

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1. Bulletin of American Petroleum Institute, December 8, 1922.

I mean a good living; the kind of living that permits a thrifty man to build his own home; to properly clothe, feed, and educate his wife and children. One industry can not profit at the expense of the other. In this country our prosperity is best assured by the prosperity of the entire people, not of this class or that class, and for American industry as a whole to seek to hold down the pay envelop so that it provides only the bare necessities of life, were to weaken, and eventually to wreck, the greatest market which American industry possesses--the American market."

There are several different levels of living and not just one standard of living. Two of these levels have been well investigated. They are the minimum subsistence level and the minimum comfort level. The minimum of subsistence standard is supposed to provide just a bare existence. It can be determined in terms of death rates, sickness rates, and calory needs. It is the wage that is thought of when we speak of requiring industry to pay a living wage and if it do otherwise, then we believe that it ought not to exist.

So radical a policy has never been promulgated for the minimum wage, no matter how beneficial would be the effects to raise the standard of living for society. When one condemns an industry for not paying a living wage, the idea of what a living wage is, must be specified--one might refer to the minimum subsistence level or again he might refer to a higher level. The minimum comfort wage has been erroneously termed the minimum subsistence wage.

A. A use of standard of living figures which has made it appear rather impractical is the tendency to apply standards worked out in one locality to another and different loca lity. There is often given the cost of living for a family of five in the United States

today. There is no single cost for the United States. There are many, differing from locality to locality. The extent of variations among various groups can not be specified without special investigations. But from data collected from all parts of our nation by the United States Bureau of Labor Statistics, the difference in cost of living according to sections of the country appears to be slight; perhaps it is a little lower on the Pacific coast. A third source of confusion in the use of standards of living in setting wages has been the failure to differentiate between actual budgets and standard budgets. Actual expenditures are sometimes called the plane of living, while standards of expenditures, showing what should be spent to obtain a bare subsistence or a minimum of comfort, are called standard budgets.[1.]

It is often stated that the standard budgets are too high; that families can and do live on a smaller amount. This statement is in part due to the fact that a minimum comfort standard is compared with a minimum of subsistence plane of living. There is probably more danger of a minimum of subsistence standard being set too low rather than too high. The reason is as follows. Creators of standard budgets at the minimum of subsistence level tend to estimate the standards for each separate section of the budget, as for instance, for food, for clothing, for rent, for fuel and light, and for miscellaneous items. Then these standards are added up and total, let us assume $1,500. But does it actually follow that $1500. will be spent by the wage earner's family in the same proportion that the creators specify? There is a tendency in the creation of these standard budgets to minimize the sundry items. There is evidence that shows wherein workers' families have gone without the necessary food, clothing, warmth, and other

1. W. F. Ogburn, "Standard of Living Factor in Wages", American Economic Review, March 1923, (Supplement) p.120

expenditures in order to secure recreation or purchase services or goods which are concerned with social standing.

A fourth difficulty in the utilization of the standard of living as a basic feature in wages determination is the adjustment to the varying composition in sex, age, and in the family of the working class population of a particular plant. Standard budgets are customarily drawn for a family of five. Employers have at various times stated that the families of their wage earners are smaller, averaging, say two children per family. Nevertheless public opinion has supported this family of five standard, since in order that the race might maintain itself, two children must grow to maturity, marry, and in turn bear children. Three children are simply a recognition of the undoubted chance of death, non-marriage, and of infertility. However, changes can be made in the standard budget, either downward or upward, if variations in the size of the family seem to warrant. In industries where very young men are employed or where unmarried men are the rule, or in industries where large proportions of women are employed along with men, it might be necessary to make some special adjustment.

B. The Eight Hour Day and the Standard of Living.

As early as 1842, the eight hour day could be found in only a few industries. But it was not until Ira Steward, a Boston machinist, came into prominence with his demands for the eight hour day that the movement commenced to take on a nation wide importance. Steward was born in 1831 and began to learn the machinist's trade when he was seventeen years of age. His daily toil consisted of twelve hours, and very soon after his entry into the above field, he began a life-long agitation for the eight hour day. This eight hour day was so uppermost in his thoughts and actions that he was called the "eight hour monomaniac."

The substance of Steward's theory was the principle that wages do not rely on the amount of capital or the supply of labor (wage fund doctrine) but depend upon the habits, wants and customs of the working people. Steward held that the productiveness of capital was increasing at a tremendous rate as the result of invention. By encouraging machinery, the worker could increase this surplus and then, could secure such a portion of it as was necessary to support his standard of living.[1] The standard of living could be raised by increasing his wants and necessities (and these are without limit) on the condition that the workers possess the leisure which arouses desire, improves habits, and increases wants. But these additions in the wants could not come about if the rivalry of low standard labor were allowed to drive out the labor of higher standards. It was not essential to forbid immigration and it was insufficient to depend on the trade unions. The proper remedy was to adopt a nation

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1. Commons, J. R., "History of Labor in the United States", vol.2, p. 90

wide eight hour day law that would make it necessary for the low standard laborer who at present could barely live on his ten and twelve hour wages to demand the same daily pay for eight hours. This forced lowering of his hours would make for an addition to his wants and force him to ask for still higher pay--a pay which the growing surplus from machine production would enable the employer to meet without any discomfort.

In contrast to Lassalle's "Iron Law of Wages" this philosophy of Steward's has been termed the "Golden Law of Wages." The former is based on the physiological wants that maintain only life and the species while the latter places special emphasis on the psychological desires which raise man above the animal.

C. A Theory of the Standard of Living and Wages.

The following is a theory advanced by George Gunton, a co-worker with Steward. "The rate of wages in any country, class, or industry constantly tends towards the cost of living of the most expensive families who furnish a necessary part of the supply of labor in that country, class, or industry."[1] By "the most expensive families" is not meant the most expensive single family but the most expensive ten or twenty per cent of the class whose labor is necessary. This theory holds that the price of service (wages) is ultimately determined by the cost of production, and that the cost of producing labor is determined by the socially accepted standard of living. If wages are ruled by the standard of living it will be apparent that wages will always be the highest where the established standard of living is the most simple and expensive; to turn the foregoing about, wages will be the low-

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1. Gunton, George, "Principles of Social Economics"-p. 203

est where the standard of living is very inexpensive. Such a situation prevails the world over. In support of this contention we point out the differences in wages between Asiatic countries and European nations.

This viewpoint is stressed by the fact that the "industrial centers of the world have, from the dawn of human history, been the birthplaces of freedom and the nurseries of civilization." On the basis of this principle it is easily seen why the wages of a agricultural laborers are always lower than those of mechanics and is usually the case, agricultural wages are higher in the vicinity of cities and large towns than in outlying areas. Is this because the wants of the agricultural class are fewer and their standard of living lower?

A lower standard of living may also be offered as the cause for the difference between the wages of women and those of men in the same industry. If wages were decided on the basis of skill and competency of the laborer, then the carpenter, painter, and mason in the country town, with equal skill, would get the same wages as those in the large cities. Laborers of equal skill in varied industries in Pekin, Tokio, and Constantinople would secure the same wages as those in New York City but we know that the common laborer of New York secures higher wages than skilled mechanics in a large number of other places.

If the lower wages of women were caused by differences in sex, then in such a theory the wages of men everywhere would be greater than those of the women anywhere, a situation which is not so. The various studies have shown that the average woman's cost of living is much lower than that of the average man, and her wages are cor-

respondingly lower. Thus the wages of women are ruled by the identical law as those of men, namely the cost of living, and the only reason why the wages of women are lower than those of men is because the cost of living for women is less.

This cost of production idea holds or declares that the laborer can not or will not long agree to sell his services for less than it costs him and his family to live. He will often labor for less than would supply him with exceptional comforts and luxuries but he will not continuously labor for less than will supply him with those articles which by constant repetition and the force of habit have become necessities. Rather than dispense with these he will refuse to work and will introduce strikes, riots, and other methods of endangering the peace and prosperity of the community.

Some objections to the foregoing exposition may be noted.[1]

1. Workers will reduce their standards of living in preference to starving, especially when there is a large supply of labor prepared to take the positions of those who urge the higher standard of living.

2. Machinery has rendered many men jobless-men whose special skill was essential but whose work can now be performed by cheap labor, even by the labor of women and children.

3. In some of the highly skilled trades the workers therein may maintain a high wage standard and a good standard of living thru effective organization. But such a practice is impossible for the unorganized, unskilled laborers.

4. The chief argument against Gunton's theory is based upon the fact that he mistakes causes for effects. Wages are not high be cause the standard of living is high, but vice versa. A man does

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1. Gide, C.,"Principles of Political Economy", p. 505

not raise his standard of living for the purpose of increasing his wages; but he makes an effort to obtain better wages in order to improve his standard. To secure better wages, he must increase his productivity, that is, his usefulness to those who employ him.

D. The "Iron Law of Wages" is based upon the fact that labor is a commodity which is bought and sold on the market. When free competition is present, is not the value of all commodities decided by the cost of production? The same idea must be true for the commodity termed "manual labor." The price of labor (wages) must also be fixed by the costs of production. The German economist, Lassalle, emphasized this theory of the cost of production of labor (as did Ricardo and others) and to put this law into general terms, wages can not long remain above or far below the amount necessary for the maintenance (subsistence and propagation) of the laboring class.

Why isn't the rate of wages the same in all trades if this theory be true? Is it essential that a plumber consume more food than a ditch-digger? Why are wages higher in the United States than in England? Can we attribute such a condition to the fact that the American requires more food-stuffs than the Englishman, even though both are of the same race? We know that wages today are higher than they were a hundred years ago. Is this caused by the fact that we have greater appetites than our forefathers?

But this law of wages is explained in a broader sense. It is sometimes taken to mean not the basic amount of food which is essential to keep body and soul together but the minimum amount that is necessary to content the varied wants of man living in

civilized society-a variable amount that is based on the stage of civilization which a society has reached. The law is translated to mean that the wages of labor are ruled by the customs and habits (standard of living) of the working class to which a man belongs and by the sum total of wants which typify the people among which he lives.

This standard of living idea (such as we have previously discussed) is a modified form of the subsistence theory. The former states that wages must advance to meet the cost of any standard which the workers might establish and below which they will refuse to multiply. While there might be an element of truth contained in this, as a theory it is insufficient. A high standard of living and other social factors which prevent a too rapid are features which ultimately decide the marginal productivity of labor, and hence the height of wages.

The lowest wage for which the worker is willing to work is determined by his standard of living. This standard might be no more than sufficient to maintain the health, life, and strength of the group and to allow it to perpetuate itself from one generation to another. This is called the minimum of subsistence standard. In sections of the world many of the labor population are content with a subsistence standard and make no effort to secure higher wages than are required to maintain it.

In a modern country, the labor supply is often not content with a mere subsistence standard but will insist upon a somewhat higher level of well-being. This standard, whatever it might be, operates to set a minimum to the level of wages that any group will accept. "If this minimum is below the amount which would be paid on the ba-

sis of the marginal efficiency of the group there is an area, within which the actual rates of wages paid may be created anywhere between the marginal productivity of labor as the maximum and the cost of living as a minimum."[1]

E. This view or opinion of the standard of life, though changeable, is rather a fixed thing in those moving forces which give a direction to distribution. The workman, by association, express or implied, determines it and his employer regulates production to it. The employer will do all within his resources to obtain an increase in output in return for every increase in wages, and where a local standard forces him to pay higher wages than his rivals in other sections, to exact an amount of work equally greater. So, this theory that wages are settled by the standard of living of the worker of a group is not in disagreement with the theory that wages tend to be equal to the worker's efficiency; the worker sets the standard, and the employer takes care that his efficiency corresponds. There is no intimation, of course, that the worker can increase his wages by the simple act of spending more; the idea of the set standard of life affects wages only by creating the idea of acting in unison among those workers of a particular type of labor.

For this reason it exerts more influence in making the workers firm in their perseverance against a reduction in wages rather than in an acceleration or an advance. Anything which causes the workers to act in unison or collectively makes their control over wages that much the greater. This idea of the standard of life results in almost automatic collective action whenever real wages are threatened. "It corresponds in industrial warfare to the trenches with which a modern

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1. Clay, Henry, "Economics for the General Reader," (American edit.) p.307

army secures its line; it is a defense against attack, and a means by which any new advance may be made secure."[1]

It is a cardinal precept among union men not to yield to any wage cut which possibly can be avoided. If the unionists accepted less pay, prices would be further lowered. If the employer could utilize this device of a wage reduction whenever profits decreased, he would come to be dependent on it instead of resorting to better management and machinery. Resistance to wage reductions on the part of the workers generally receives the moral support of the general public because such a reduction oftentimes results in a deprivation of comforts for the worker and his family. In order to retain the standard of living, the unionist will prefer partial unemployment rather than accept a wage reduction.

So, we can say that the standard of living has some influence on the bargaining proceedings. The employer and the employee enter into some agreement concerning the wages to be paid. Various forces enter into the determination of the agreement; collective bargaining, the knowledge of each party to the agreement, the estimates which each party has placed upon the value of the subject matter, and traditional customs as to what constitute "fair wages." While "fair wages" might mean various things to different people, in the main, men determine what is fair and just, usually by the prices or wages to which they are accustomed. A traditional and well-defined standard of living will cause workmen to resist very strenuously any efforts made to remove what they deem to be decent and fair wages.

The standard of living is important as a preventative of a fall in wages. Able employers do not try to retain profits by decreasing

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1. Bolen, George L., "Getting A Living," p.449.

wages if the profits can be retained in any other way. To undergo deprivation of their usual supply of comforts leads men to inefficient production as the result of discontent or to seek employment elsewhere. The standard of living has a similar bearing in forcing a rise in money wages when as a result of a general increase in prices, more money is needed to purchase a family's usual amount of commodities. Yet generally, the predominant reason is that an advance is justified by prices and profits in the trade considered.

However, the standard of life can not bring about the impossible. The most superior standard will not stop or hinder a drop in wages in the face of a drastic change in the demand for the product or if there appear depressed business conditions. If the ones who employ are not able to sell the product at a certain price, they must decrease the cost or give up the business. From this viewpoint, the cost of labor is like the cost of anything else; it must fit itself to the price. [1.]

It is in regard to the standard of living that men and things appear in opposition to each other. With regular commodities, the newcomer, who can produce the identical article at lower costs, will lower the price. With labor, if the cost (standard of living) has changed into a habitual one, the newcomer is not inclined to voluntarily yield to a reduction of the standard. To the ordinary or regular producer, low cost of the product signifies high profits; to the laborer, low cost of the product, that is low wages, indicates low gains. The real difficulty comes about when the newcomers are accustomed to a lower standard and, where the conditions are pressing or immediate, compel them to take what those who do the employing will give. To this degree or extent, the wages of women are

1. Seligman, E., "Principles of Economics", p.421

very often lower than those of men, due not only to the comparatively lowered production of women in some industries, (and even when the output is identical) but also because the woman's standard of life is lower. Oftentimes, she does not have to support the family and can eke out her money income because of the less consumption of food, the making of her own clothes, etc.

About the same ideas might be applied to recent immigrants. These people in the majority of cases receive lower wages than the native workers, not only because their efficiency or productivity are less, but due to the fact that the immigrants' standards of life are lower and they are ready to work for less-until they become aware of the higher standard and measure up to it.

F. The Influence of Standards of Living.

One of the causes for the upward movement of wages in the early nineteenth century in England was the rise in the standard of living among the wage earning classes. Their continuous efforts to secure increases in wages taught them how to think, showed them the unnecessity of their lowliness, and created in them a desire to rise above the mere animal existence stage. Between 1825 and 1860, self-education and self-help were already in vogue among English workers. Instead of the animal tendency to absorb added wages by an increase in numbers, the additional wages were used for books, better home furnishings, better food, and later, savings in various societies. The shortening of the work day resulted in spare time which was utilized in proper recreation and self-education. As soon as the workman's standard of living had been raised to include these comforts, he would not marry unless his wages allowed him to maintain a family on the same level.[1]

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1. Bolen, G. L., "Getting a Living", p. 137.

As the higher standard of living became widespread with the passing of time, higher wages were necessary to keep up the supply of the necessarily required labor. The addition to food and comfort as the result of the increased wages, and the decline in the excessive number of hours per day, added to the workers' strength and intelligence and allowed him to earn his wages in conjunction with the wider utilization of machinery. We must not assume that people utilize at once every addition to wages in the most superior way. It takes considerable time to raise the conditions existing among the poor classes. When a given wage level is questioned as to whether it is sufficient to sustain the supply of labor, the standard of living among the receivers of the wages must be brought in.

G. What will come about if the reward of labor does not measure up to the amount required by the standard of living? Such amount is sufficient to supply the necessities and comforts of life according to the habits and customs existing among the workers and takes into consideration the support of a family. To include the idea of providing for a family is necessary because we are ascertaining the conditions of existence of a class, not of individuals. In order to prevent a decrease in numbers in the class there must be provisions made for the bringing up of children and their industrial training. Wages must cover the necessities of the wage earners and of the dependent members of the class; those too young to receive compensation, those who raise children, and those who are too advanced in years to maintain themselves.

If wages drop below the amount which is necessary to maintain the class standard, the supply of labor will be lessened,[1] perhaps

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1. Flux, A. W., "Economic Principles", p. 129

in numbers or in efficiency, or in both. We are not considering the fact that a decline might occur as the result of a transition to other classes.

The drop in earnings below the amount required to sustain life on the class standard in actual practice results in a decline in amount or impairment of the consumption of what influences the physical health and strength, even though earnings might still afford some consumption of luxuries. This decrease in the more necessary portions of consumption has its effects on the efficiency of labor, which is also influenced by the mental attitudes of the workers toward employment which they deem to be inadequately paid.

Besides these forces which act on the workers' efficiency, we must take into consideration the influence of decreased earnings on the natural increase of numbers. While some classes are heedless as to the proper discharging of the parental responsibilities and as a result, their birth rate does not respond to declining prosperity, the higher grade groups of the wage earning classes, perhaps all with the exception of the very lowest types, find themselves actuated in this respect by misfortune or distress as the result of adverse times.

A decrease in earnings exerts an influence on marriage due to the fact that the class standard of family life can not be maintained on the lowered earnings. A comparison of the marriage rate in prosperous and depressed times seems to substantiate the existence of the influence. While the differences may be slight, yet they are present and should not be overlooked. Any retardation to marriage results in a decrease in births, thus restraining the supply of labor at the primary source.[1]

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1. Ibid, p. 130

Even those of the low classes whose birth rate does not change with the fluctuations of our industrial organization are affected. Not to have means causes difficult economic conditions of existence for all, particularly for very young babies and the survival rate is affected even though the birth rate is not moved.

Man defers marriage for a time until the prospect of being able to support a family decently really dawns upon his mind. The tendency gains in strength in proportion as young men and women belong to classes which are well-to-do, economically and socially.

There is an immutable tendency for human beings to over-multiplication of their numbers but a fixed standard of living, established on long habit, acts as an opposing force to such a tendency. The standard exerts its influence because there will be a certain number who will be unwilling to contract marriage because such a step is likely to deprive the persons involved of various comforts and luxuries to which they had been habituated.

VI. Conclusion

A. Many speak of the standard of living as the basic cause that settles wages. There is a course in which it might affect wages because indirectly it has an influence on numbers but in itself, the standard of living does not cause advanced wages. It might result in a decreased birth rate or maintain a low birth rate and thus engender one of the stipulations upon which the continuance of high wages oftentimes depends.

No restriction of the number of laborers can increase wages above their productive contribution. The positive factor in wages is productivity. The standard of living must necessarily be considered as one of the factors which ultimately settle the marginal productivity of the workers. The argument for this viewpoint may be considered from the effect which the standard might exercise on their numbers and also that the productiveness of the individual is influenced by the standard. This productiveness is affected by those factors in his standard which sustain physical sustenance. More nutritious food, better clothing, improved housing facilities result in physical strength and mental alertness. The results of fatigue are minimized. Leisure time gives an opportunity for the spiritual development of man and the results of all the foregoing tend to make the worker a more effective producer.

A man's welfare still depends on the product he gets regardless of the advantage that a high standard of living draws out his best efforts. The fact that a man's standard necessitates a $5.00 per day wage will not hinder his income from declining to nothing when times of depression eliminate the markets and profits of his employer. Wages depend greatly upon the product value the worker

creates above the expenses of production. When the railway fireman passes to the right side of the cab as engineer, he receives a greater sum than he received as a fireman. This is not due to the fact that the engineer desires or requires more food but is attributable to the fact that his work is worth more in the labor market.

The standard of living has little to do with the matter except to inculcate in one a desire and effort to secure better things, a portion of which is to demand wages as high as trade conditions will allow. These various factors, combined with the worker's efficiency, set the wage rate.

Notwithstanding, there is existent a relationship between standards of living and wage rates. The effect of these standards upon labor scarcity must be considered. Experience has shown that those laborers who are comfortably situated in regard to worldly goods often have small families whereas the laborers who are in a lower economic status have large families. The small family units represent the scarcity groups. As the result of limitation of the births among the former group there is a consequent scarcity in the supply of laborers in these classes and there is a resultant high wage. The influence of the standard is in the fact that it incites within the worker the desire to restrict the size of his family to that number which he can sustain or maintain without lowering his accustomed standard of living. The larger the marginal productivity of a group of workers, the larger will be their remuneration while the marginal productivity is enhanced by their scarcity. The standard exerts its influence on scarcity and scarcity influences the rates of compensation.

Within comparatively recent years there has arisen or is being

evolved the idea of a living wage and for wages to be founded on the productive efficiency of labor. Even though this idea of determining wages according to the rate of productiveness is a rather new feature in our industrial system, the notion is gaining ground. In the olden days, when the wages which were given were barely possible to sustain life, such a state of affairs could not be attributed to the employer. But within the past few years, the idea that industry owes the workers a good standard is finding some acceptance. An industry which can not do this for its workers can not justify itself and should be dispensed with. The following quotation exemplifies the doctrine which is winning acceptance among some of our present day industrial leaders such as Henry Ford, Owen Young, and others.

B. "A high rate of wages expresses a high rate of productiveness, and its converse a high consuming power. A relatively high consuming power, high standard of living, is required to make the laborer efficient, strong in body and in mind. Without this, labor remains economically more or less sterile, for which an adequate proof will be given in the further progress of this work, treating the industries of the country seriatum . Employers can therefore under no possibility lose where a permanently high rate of wages rules. They can not possibly lose under a rising rate of wages even, as a rise in actual wages is only possible with the rise of the productive power of labor. A higher rate of wages than the one of a previous period simply registers the change which has gone on in the direction of improvement in the economy of production. But instead of being injured, the employer gains positively by the rise in the standard of wages thru the increasing demand thereby created for the increasing product."[1]

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1. Schoenhoef, J., "The Economy of High Wages" Putnam, N. Y. pp.22-31

A. There was no application of the foregoing theory until 1914 when Henry Ford utilized it in his plants. In creating the $5.00 a day minimum wage, he emphasized the fact that high wages could be paid while at the same time lowered costs of production might be secured through a greater utilization of machines and machine processes. Simultaneously, if a lowering of prices occurred more would be consumed. The universal application of this principle to American industry was advocated by Mr. Ford as a method of obtaining national prosperity as a result of increased general consumption.

We must not assume that all industrial leaders have accepted this doctrine as final. The labor journals are very outspoken in their criticisms concerning the increased productivity per man in industry within recent years while at the same time the worker has failed to secure his proportionate share. The specific industries charged with the foregoing are the tobacco manufacturing and the linoleum.[1] While some persons might point out that Ford's proposal is increasing in favor among employers, we must not forget that many years will elapse before the idea is certain of nation wide acceptance.

In my opinion, the final solution of the problem of wages can not be separated from the problem of population and its rate of increase.

C. For the purpose of bringing out the attitude of modern labor thought, the following quotation is from the Report of the Committee on Resolutions, American Federation of Labor Convention which was held in Atlantic City in 1925.

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1. Labor, (A National Weekly Newspaper) Washington, D. C., July 8,1930.

"We hold that the best interests of wage earners as well as the whole social groups are served in increasing production in quality as well as quantity, and by high wage standards, which assure sustained purchasing power to the workers and, therefore higher national standards for the environment in which they live and the means to enjoy cultured opportunities. We declare that wage reductions produce industrial and social unrest and that low wages are not conducive to low production costs.

We urge upon wage earners everywhere; that we oppose all wage reductions and that we urge upon management the elimination of the wastes in industry in order that selling prices may be lower and wages higher. To this end we recommend cooperation in study of waste in production which the essay of the Federated American Engineering Societies covering important industries has shown to be 50% attributable to management and only 25% attributable to labor, with 25% attributable to other sources, principally managements in industries producing commodities for any single industry under consideration.

Social inequality, industrial instability, and injustice must increase unless the workers' real wages, the purchasing power of the wages, coupled with a continuing reduction in the number of hours making up the working day, are progressed in proportion to man's increasing power of production.

Unquestionably the welfare of any people as a whole is directly related to the productivity of that people. The difficulty is met with when there is an attempt to apportion returns on the basis of individual productivity.

However, progress that has been made in some cases in the development of the science of industrial management shows that it is possible to look forward along this line with some hope of results

that will afford justice to the workers and to society at the same time.

While it is true that this theory of wage determination based upon the productivity of labor is one which was first advanced by labor representatives, the theory has secured a place in our present economic system because of its widespread acceptance by our industrial leaders This latter group bases its acceptance of this increased productivity theory upon the idea that high wages increase the consuming power of the people and thus economic prosperity is engendered."

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